ADAPTIVE CFL CONTROL CIRCUIT

ABSTRACT OF THE DISCLOSURE

An electronic ballast provides fault detection and safety features for overcurrent protection and hard switching at a half bridge. A voltage controlled oscillator supplies a switching frequency that is modifiable based on operational feedback parameters. A feedback circuit senses load current and output voltage to determiner fault conditions and to provide control information for adaptively adjusting the frequency of the voltage controlled oscillator. By appropriately controlling the voltage controlled oscillator output, the electronic ballast maintains a zero volt switching with minimum current switching to achieve an efficient and robust electronic ballast control. The entire control is integrated on a single integrated circuit.